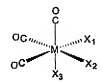
This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of the Claims:

1-33. (Cancelled)

34. (Currently Amended) A method for the treatment of a cancer, the method comprising:

administering to a patient afflicted with the cancer a metal tricarbonyl compound of the general formula:



wherein

M is rhenium or technetium or an isotope thereof;

at least two of X_1, X_2 and X_3 are monodentate ligands selected from the group consisting of CO, NH_3, aromatic heterocycles, thioethers and isocyanides; or

two of X_1, X_2 and X_3 are part of a bidentate ligand and the other one is a monodentate ligand selected from the group consisting of CO, aromatic heterocycles, thioethers and isocyanides;

wherein when X_1, X_2 or X_3 is an isocyanide, the nitrogen atom of the isocyanide is complexed with M.

35-36. (Cancelled)

37. (Previously Presented) The method of claim 34, wherein the aromatic heterocycles are selected from the group consisting of pyridine, pyrimidine, pyrazine, imidazole, pyrazole, triazole, tetrazole, thiazole, oxazole and purine.

38. (Previously Presented) The method of claim 37, wherein the purine is guanine or 9-methyl guanine.

39. (Previously Presented) The method of claim 34, wherein the thioethers are selected from the group consisting of linear substituted dialkyl thioethers, cyclic thioethers, and tetrahydrothiophen.

40. (Previously Presented) The method of claim 34, wherein the isocyanides are selected from the group consisting of an alkyl chain comprising a terminal NC group coupled

thereto and optionally comprising a -COOH, NH2, -X, -SH, or -OH functional group, wherein X is an anionic leaving group.

41. (Previously Presented) The method of claim 34, wherein the bidentate ligand is an amino acid or dicarboxylate.

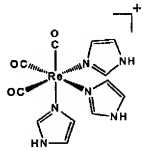
42. (Previously Presented) The method of claim 41, wherein the amino acid is an anionic amino acid.

43. (Previously Presented) The method of claim 41, wherein the amino acid is a non-natural α- or β-amino acid.

44. (Previously Presented) The method of claim 43, wherein the non-natural amino acid is N,N-dimethyl glycine.

45. (Previously presented) The method of claim 34, wherein at least two of the ligands of the tricarbonyl complex shown in formula I are exchanged by guanine or guanosine after incubation for three days with guanine or guanosine being present in excess over rhenium or technetium.

46. (Previously Presented) The method of claim 34, wherein the compound is a compound selected from the group consisting of:



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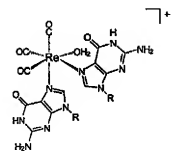

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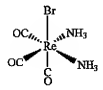

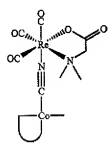

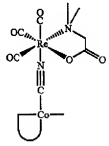

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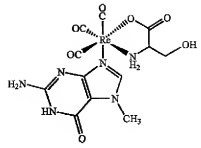
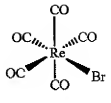


11 (L-Ser) and 12 (D-Ser)



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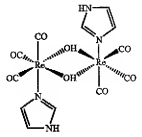

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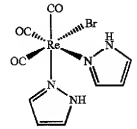

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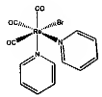

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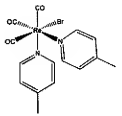

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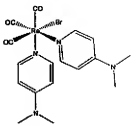

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and combinations thereof.

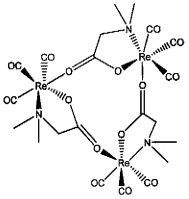
47. (Previously Presented) The method of claim 34, wherein X_1 and/or X_2 and/or X_3 are coupled to a targeting moiety.

48. (Previously Presented) The method of claim 47, wherein the targeting moiety is selected from the group consisting of bombesin, neurotensin, somatostatin, glucosamine, nucleosides, nuclear localizing sequence peptides (NLS peptides), oligonucleotides, anthracyclines, and acridines.

49. (Previously Presented) The method of claim 34, wherein the metal tricarbonyl compound is chemotoxic.

50. (Cancelled)

51. (Previously Presented) A compound selected from the group consisting of:



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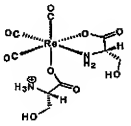

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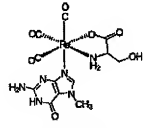

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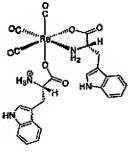

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52. (Previously Presented) The compound of claim 51 further coupled to a targeting moiety.

53. (Previously Presented) The compound of claim 52, wherein the targeting moiety is selected from the group consisting of bombesin, neurotensin, somatostatin, glucosamine, nucleosides, nuclear localizing sequence peptides (NLS peptides), oligonucleotides, anthracyclines, and acridines.